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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,350	07/31/2003	Hans Weber	MUH-12728	1926
24131	7590	08/05/2005	EXAMINER	
LERNER AND GREENBERG, PA P O BOX 2480 HOLLYWOOD, FL 33022-2480			NGUYEN, DAO H	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,350

Applicant(s)

WEBER ET AL.

Examiner

Dao H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 and 7-10 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-12 is/are allowed.
- 6) ☒ Claim(s) 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0703 & 0803.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. In response to the communications dated 07/31/2003 through 04/13/2005, claims 1-12 are active in this application.

Acknowledges

2. Receipt is acknowledged of the following items from the Applicant.

Information Disclosure Statement (IDS) filed on 07/31/2003 and 08/25/2003. The references cited on the PTOL 1449 form have been considered.

Applicant is requested to cite any relevant prior art if being aware on form PTO-1449 in accordance with the guidelines set for in M.P.E.P. 609.

Election/Restriction

3. Application's election to prosecute the invention of Group I, claims 4-6 and 11-12, drawn to semiconductor devices filed 04/13/2005 is acknowledged.

Because Applicant did not distinctly and specifically point out the supposed error in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1-3 and 7-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a non-elected group there being no allowable generic or linking claim.

Applicant has the right to file a divisional application covering the subject matter of the non-elected claims.

Drawings

4. The drawings are objected to for the following reasons.

Figures 7 and 9 are not designated by a legend such as "Prior Art". The Legend is necessary in order to clarify what applicant's invention is (see MPEP § 608.02g).

A proposed drawing correction or corrected drawings, showing changes in red ink, are required in reply to the Office Action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. However, formal correction of the noted defect(s) can be deferred until the application is allowed by the examiner (see MPEP § 608.02v).

Specification

5. The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim(s) 4-6 are rejected under 35 U. S. C. § 102 (e) as being anticipated by U.S. Patent No. 6,794,251 to Blanchard.

Regarding claim 4, Blanchard discloses a PMOS field-effect transistor cell, as shown in figs. 1, 3, having a p-type channel zone 5 below a polysilicon layer (polysilicon gate) comprises: the polysilicon layer having holes (see col. 2, lines 36-67) formed in a gate region and pillars 40 formed in a source region, and wherein a p-type channel zone 5b in the source region 5 extends deeper into an n-type epitaxial layer 1 than the p-type channel zone 5a in the gate region and an impurity concentration (P^+) of the p-type channel zone in the source region is greater than an impurity concentration (P) of the p-type channel zone in the gate region. See figs. 3 and also col. 1, line 48 to col. 3, line 51.

Regarding claim 5, Blanchard discloses the PMOS transistor cell being configured as a vertical depletion-mode MOS field-effect transistor cell. See fig. 3.

Regarding claim 6, Blanchard discloses the PMOS transistor cell being configured as a coolMOS™ cell. See col. 1, line 48 to col. 3, line 51.

Reasons for Allowance

8. Claim(s) 11-12 would be allowed.

The following is an examiner's statement of reason for allowance:

None of the references of record teaches or suggests the claimed PMOS transistor cell comprising a polysilicon layer lying above the channel zone, wherein the polysilicon layer having slots or webs being the residual portions of the polysilicon layer, being formed in sections thereof above the channel zone, lying within a polysilicon hole delimiting the source region, and being introduced to connect respective channel zones of adjacent transistor cells.

Conclusion

9. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao H. Nguyen whose telephone number is (571)272-1791. The examiner can normally be reached on Monday-Friday, 9:00 AM – 6:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax numbers for all communication(s) is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1625.

A handwritten signature in black ink, appearing to read 'Dao H. Nguyen', with a long horizontal stroke extending to the right.

Dao H. Nguyen
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August 03, 2005

A handwritten signature in black ink, appearing to read 'David Nelms', with a large loop at the top.

David Nelms
Supervisory Patent Examiner
Technology Center 2800